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(54) **CHANNEL EXTRACTION DIGITAL BEAMFORMING**

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(58) **Field of Classification Search**

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See application file for complete search history.

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(57) **ABSTRACT**

In an embodiment, a receiver included in a communications system includes a channel extractor configured to segregate a received signal into a plurality of channel signals, wherein the plurality of channel signals includes a plurality of data signals; a plurality of phase shifters electrically coupled to the channel extractor and configured to decode each data signal of the plurality of data signals with a respective phase; and a plurality of time delay filters electrically coupled to the plurality of phase shifters and configured to decode each data signal of the plurality of data signals with a respective time delay, wherein the plurality of time delay filters outputs each subset of the plurality of data signals in a respective channel of the plurality of channels.

25 Claims, 9 Drawing Sheets

